

9.0 MITIGATION MONITORING AND REPORTING PLAN

9.1 INTRODUCTION

The Imperial Irrigation District (IID) and the U.S. Department of the Interior, Bureau of Land Management (BLM) has prepared a Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to provide the public and responsible agencies with information about the potential environmental effects of the proposed Desert Southwest Transmission Project (Proposed Project), located in Riverside County, California.

The *California Energy Outlook: Electricity and Natural Gas Trends Report* (CEC 2001) describes the energy supply and demand trends of the past decade to provide perspective on current events. This report provides an overview of expected developments in the near future and addresses the long-term demand outlooks through 2010. The energy trend considers both electricity and natural gas developments. The report also examines electricity demand, load management, and natural gas infrastructure developments. The report estimates that demand for electrical power in the IID service area will increase at a rate of 20 to 30 megawatts (MW) annually. The report also states that California's peak electricity demand will continue to grow at about two percent per year on average.

New generation facilities have been completed in the region to the north and east of IID's service area that may provide a portion of IID's current and future requirements. These include the Griffith Energy Project in Kingman, Arizona and the South Point Energy Project north of Parker, Arizona. The Blythe Energy Project, west of Blythe, California, began commercial operations in December 2003.

Transmission access is the main constraint to utilizing these new generation sources to meet the increased demand for electrical power in the area. IID's primary transmission system includes 92-kV, 161-kV, and 230-kV transmission lines with direct interconnections at Mirage, Imperial, Coachella Valley, Devers, and Blythe Substations. Presently, access to the Western Area Power Administration (Western) transmission grid to the northeast is an existing 161-kV transmission line from the existing Blythe Substation to Niland. This existing transmission line was operating at or near its maximum capacity by the end of 2003.

The DSWTP will increase California's transmission import capability by providing greater access to sources of low-cost energy currently operating in the Southwest. The Southwest region currently has over 6,000 MW of surplus generation, which may be imported into California. The Southwest Transmission Expansion Planning (STEP)¹ working group independently concluded a similar magnitude of generation is available for import into California. Increased access to energy in the Southwest is forecasted to lower total energy costs and substantially benefit California consumers.

¹ STEP's Purpose and Scope states "Southwest Transmission Expansion Plan (STEP) is a sub-regional planning group that was formed to address transmission concerns in the Arizona, southern Nevada, southern California, and northern Mexico area. As a result of a large amount of new generation developed in this area, it was apparent to many that the transmission grid would be inadequate to efficiently deliver that power to the major load areas. The goal of STEP is "To provide a forum where all interested parties are encouraged to participate in the planning, coordination, and implementation of a robust transmission system between the Arizona, Nevada, Mexico, and southern California areas that is capable of supporting a competitive efficient and seamless westside wholesale electricity market while meeting established reliability standards." (See, Jan. 17th 2003 PDF file at: <http://www1.caiso.com/docs/2003/01/22/2003012211380012544.pdf> and the May 8th, 2003 document at <http://www1.caiso.com/docs/2003/05/13/2003051315061917183.pdf>).

In addition, on May 8, 2004, regulatory agencies in California adopted the *Energy Action Plan* for California. The *Energy Action Plan* concluded that adequate, reliable, and reasonably priced energy supplies can be achieved, in part, by upgrading and expanding the electricity transmission and distribution infrastructure and reducing the time needed before facilities are brought on line.² In particular, “Action IV” of the *Energy Action Plan* states that ([t]he State will reinvigorate its planning, permitting, and funding processes to assure that necessary improvements and expansions to the bulk electricity grid are made on a timely basis.”

Transmission infrastructure is necessary for a competitive market, and is vital to integrating new generation additions.³ The Federal Energy Regulatory Commission (FERC) recently stated that FERC’s Goal 1 is to “Promote a Secure, High Quality Environmentally Responsible Infrastructure through Consistent Policies.” Under this goal is objective 1.1:

- Expedite appropriate infrastructure development to ensure sufficient energy supplies; and
- Identify transmission and pipeline projects with high public interest benefits and facilitate their speedy completion, consistent with the Commission’s (FERC) statutory mandates and due process.⁴

The California Legislature, likewise, has encouraged investment in transmission facilities to facilitate competition in the generation market. It has stated that reasonable expenditures to expand transmission facilities are in the public’s interest, if made for the purpose of facilitating competition in electric generation markets.⁵

The DSWTP is expected to enhance competition amongst energy suppliers by increasing access to the California energy market, providing siting incentives for future energy suppliers, and providing additional import capability. Facilitating a competitive energy market in the Southwest may also create employment opportunities, which are beneficial to the economy and industries in Arizona and California.

The basic objectives of the Proposed Project are to:

Objective 1: Ensure access to competitive generation sources that will allow the minimization of market price spikes, which adversely affect the region’s customers.

Objective 2: Provide improved transmission access to new generation sources (e.g., the Griffith Energy Project, the South Point Energy Project, and the Blythe Energy Projects) to meet the increased demands for electrical power in the area.

² The California Energy Commission’s Electricity and Natural Gas Infrastructure Assessment Report (December 2003) available at www.energy.ca.gov (<http://www.energy.ca.gov/reports/100-03-014F.PDF>). Similarly, the report highlights the need for additional transmission infrastructure investment, particularly to support generation infrastructure.

³ See, R.04-01-026, Order Instituting Rulemaking on policies and practices for the Commission’s transmission assessment process (January 28, 2004) (Attachment B, Report of Current Planning Process for Investor-Owned Utilities).

⁴ See, Federal Energy Regulatory Commission Strategic Plan FY2004-FY2008, September 10, 2003, <http://ferc.gov/about/strat-docs/09-29-03-detail-strategic-plan.pdf>.

⁵ Cal. Pub. Util. Code § 454.1 (“(a) Reasonable expenditures by transmission owners that are electrical corporations to plan, design, and engineer reconfiguration, replacement, or expansion of transmission facilities are in the public interest and are deemed prudent if made for the purpose of facilitating competition in electric generation markets, ensuring open access and comparable service, or maintaining or enhancing reliability, whether or not these expenditures are for transmission facilities that become operational.”)

Objective 3: Enhance system reliability by providing additional transmission line capacity to the Coachella Valley load center and, thus, reduce loading on other transmission lines.

Objective 4: Improve operational flexibility during normal as well as contingency situations.

The Desert Southwest Project would satisfy these objectives by constructing and operating a new transmission line from the area around the Blythe Energy Project near Blythe, California, to the existing Devers Substation, near Palm Springs, California. The operating voltage will be 500-kV.

The EIS/EIR was prepared in compliance with the requirements of the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code §§ 21000 *et seq.*), CEQA implementing guidelines (California Code of Regulations (CCR), Title 14, §§15000 *et seq.*), and IID's Rules and Regulations to Implement CEQA. BLM is the federal Lead Agency for the preparation of this EIS/EIR in compliance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulation for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and the BLM NEPA guidance handbook (H-1790-1).

This Mitigation Monitoring and Reporting Program (MMRP) (see **Table 9-1**) has been developed to comply with CEQA and NEPA requirements that a mitigation monitoring and reporting program be prepared prior to project approval if adverse impacts are identified in the EIS/EIR.

9.2 PROJECT DESCRIPTION

The Proposed Project includes the construction and operation of new substation / switching stations and an approximately 118-mile 500-kV transmission line. The Project will initiate at a new substation / switching station (referred to as Keim) in the area near the Blythe Energy Project where it will interconnect with one or more of a number of projects or parties. As shown on Figure ES-1, the alignment of the Proposed Project would follow a generally east/west alignment from this area to the Devers Substation. From the Keim substation / switching station to its intersection with the existing Devers – Palo Verde 1 (DPV1) line, the new line would be constructed as a double circuit line or two parallel lines. At this intersection, another new substation / switching station (referred to as Midpoint) would be constructed to facilitate interconnection with the existing line. The proposed 500-kV transmission line would use steel lattice structures along its entire route. The Proposed Project transmission line would be located along existing transmission line rights-of-way for much of its alignment, and would utilize existing access roads, requiring a limited amount of new access road construction. Upgrades will be required at the Devers Substation on the west end of the project line.

In response to comments received on the Draft EIS/EIR, a minor variation to the Proposed Project has been developed (referred to as Variation PP1). This variation of the Proposed Project involves building the proposed project within the right-of-way for SCE's Palo Verde – Devers No. 2 (DPV2) transmission line instead of immediately adjacent to it as originally proposed. The DPV2 right-of-way is adjacent to the DPV1 right-of-way. Preferred Alternative PP1 would

remain in the same general alignment as the Proposed Project but would be shifted only slightly (approximately 150 feet) into SCE's existing and approved DPV2 right-of-way. Implementation of this variation would result in one 500 kV line being built for both entities (Desert Southwest Transmission Line Project and SCE) within this right-of-way instead of two lines being built – one by each.

The original analysis in the Draft EIS/EIR included the area of the SCE right-of-way for DPV2. Therefore, no additional field reconnaissance is needed to address this minor variation/refinement to the Preferred Project. The “agency’s preferred alternative” is the alternative which the BLM believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors. Based on the BLM’s evaluation of Proposed Action and Alternatives, the BLM identified the Proposed Project as the “Agency Preferred Alternative.”

9.3 LEAD AGENCIES

IID is the State of California Lead Agency for the preparation of this EIS/EIR and this MMRP in accordance with CEQA Guidelines (CCR, Title 14 §§ 15082 (a), 15103, 15375). BLM is the federal Lead Agency for the preparation of this EIS/EIR in compliance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulation for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and the BLM NEPA guidance handbook (H-1790-1). As the lead agencies, IID and BLM are responsible for ensuring that mitigation measures are implemented.

9.4 GOALS AND OBJECTIVES OF THE MMRP

Mitigation measures are designed to avoid, minimize, rectify, reduce, eliminate or compensate for an adverse impact caused by construction, operation or maintenance of a project. Mitigation measures included in this MMRP are presented by resource category (e.g., land use, biological resources, water resources etc.). Notation has been made where the same mitigation measure has been recommended for more than one resource category.

9.5 VERIFICATION SCHEDULE

As the mitigation measures presented herein are standardized and not specific to a particular facility, the verification schedule for mitigation measures is categorized as “pre-construction”, “during construction”, and/or “post construction”.

9.6 SIGNIFICANT IMPACTS

No significant impacts were identified in the EIS/EIR.

TABLE 9-1
BLM & IID – DESERT SOUTHWEST TRANSMISSION PROJECT FINAL EIS/EIR
MITIGATION MONITORING AND REPORTING PROGRAM

No.	Mitigation Measures	Method of Verification	Timing of Verification			Responsible Party	Completed		Comments
			Pre-Construction	During Construction	Post Construction		Initials	Date	
BIOLOGICAL RESOURCES									
VEGETATION									
VEGETATION IMPACT 1 MITIGATION - <i>Adverse effects on vegetation disturbance during construction would be minimized as practicable.</i>									
1a	During construction, travel would be restricted along the existing access roads and spur roads to the shortest feasible path to minimize impacts to vegetation communities.	Construction Contractor, Biological Monitor, Civil Engineer		X		BLM/IID			
1b	Existing access roads would be used to the maximum extent allowable, and construction of new access and spur roads would be limited to the extent practicable.	Construction Contractor, Biological Monitor, Civil Engineer	X	X		BLM/IID			
1c	Vegetation removal would be minimized wherever possible and would be restricted in sensitive resource areas (e.g., areas with erodible soils and designated areas of critical environmental concern).	Biological Monitor, Construction Contractor	X	X		BLM/IID			
1d	To the extent possible, grading and scrubbing of vegetative cover shall be avoided on all spur roads and tower pad locations, and all vehicular traffic shall drive within field designated overland routes.	Biological Monitor, Construction Contractor	X	X		BLM/IID			
VEGETATION IMPACT 2 MITIGATION - <i>The following prescriptions would prevent the spread of invasive weeds into previously uninfested areas in the designated construction right-of-way.</i>									
2a	Prior to initiating construction activities, all clearing and grading equipment would have the tires, axels, frame, running boards, under carriages, and soil holding areas washed and cleaned at a designated station to prevent noxious weed species transport to unaffected areas.	Biological Monitor, Construction Contractor	X			BLM/IID			

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2b	A qualified weed specialist, range ecologist, or arid botanist would survey the tower pad locations, stringing and tensioning sites, new spur road sites, existing access roads that require improvements, and construction material staging areas prior to construction to identify any listed noxious species infestations. If an infestation is identified, the infestation area would be clearly delineated and staked prior to project construction and an appropriate buffer would be maintained. The lead environmental compliance monitor would ensure that construction-related activities would be prohibited within these designated exclusion zone(s). Where avoidance is infeasible, please refer to measures listed below.	Biological Monitor, Construction Contractor	X			BLM/IID			
2c	Before beginning construction activities in unavoidable infestation exclusion zones, these infestations would be controlled through acceptable mechanical (e.g., topsoil excavation and removal), cultural, or herbicide applications.	Biological Monitor, Construction Contractor	X			BLM/IID			
2d	If direct control methods or removal of noxious weed infestations in construction disturbance areas is not feasible, the noxious plants may be cut and disposed of (e.g., burned at an acceptable and permitted location) or destroyed in a manner that is acceptable to the BLM.	Biological Monitor, Construction Contractor	X			BLM/IID			

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2e	The lead environmental construction monitor would educate construction personnel on noxious weed identification and the legal requirement of controlling and preventing the spread of noxious weed infestations.	Biological Monitor, Construction Contractor	X			BLM/IID			
VEGETATION IMPACT 3 MITIGATION - <i>Incorporate riparian area avoidance and permit measures.</i>									
3a	Before construction, qualified resource specialists would stake and flag or fence exclusion zones around all identified riparian woodlands. Such exclusion zones would include a 10-foot buffer to preclude sediment intrusion into the riparian areas. Earth-moving activities would be restricted from these zones, although essential vehicle operation and foot travel would be permitted on existing roads, bridges, and crossings. All other construction activities, vehicle operation, material and equipment storage, and other surface-disturbing activities would be prohibited within the exclusion zone.	Biological Monitor, Construction Contractor		X		BLM/IID			
3b	In areas where riparian habitats are unavoidable, the construction manager in consultation with the lead environmental compliance inspector would narrow the width of the centerline to the maximum extent allowable. New spur roads and existing access roads improvements would be constructed and implemented using methodology that preserve existing hydrology. Tower pad clearance would be minimized to the maximum extent allowable.	Biological Monitor, Construction Contractor, Civil Engineer	X			BLM/IID			

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3c	All temporarily disturbed riparian areas that would not be utilized for future routine operation and maintenance activities would be restored to ensure no net loss of habitat functions and values. Following construction activities, the areas would be restored as soon as practicable and the activities described in the Reclamation Plan would be implemented (Appendix F).	Biological Monitor, Construction Contractor			X	BLM/IID			
3d	Permanent, unavoidable losses of riparian areas would be mitigated by restoration and/or preservation on off-site habitats. The final mitigation acreage ratios and off-site restoration sites would be determined by the responsible agency(s) and would be conditioned through final permitting activities.	Biological Monitor, Construction Contractor	X			BLM/IID			
WILDLIFE									
WILDLIFE IMPACT 1 MITIGATION - <i>Compensate for habitat modifications per coordination with responsible resource agencies.</i>									
1a	Project mitigation would include habitat purchase and in-lieu fees provided to compensate for temporary and permanent loss of habitat for both common wildlife and special-status species. Mitigation ratios for high-quality habitat purchase would be developed by the responsible agencies to compensate for the appropriate acreage disturbed from the project construction and operation.	Biological Monitor, Construction Contractor	X			BLM/IID			

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WILDLIFE IMPACT 2 MITIGATION - <i>Construction activities and vehicle operation would be conducted to minimize potential disturbance of wildlife.</i>									
2a	Limit speed of vehicles along the right-of-way and access roads to 15 to 20 mph in sensitive habitats. In addition, construction and maintenance employees would also be advised that care should be exercised when commuting to and from the project area to reduce road mortality.	Construction Contractor	X	X	X	Construction Contractor			
2b	Prohibit vehicle operation off the right-of-way by construction workers, including construction work and employee access, except where specified by the landowner or land management agency or where roads already exist.	Construction Contractor	X	X	X	BLM/IID			
2c	Stockpiling of equipment and parking of vehicles would be undertaken to the maximum extent allowable on previously disturbed areas proximate to the construction zone.	Construction Contractor	X	X		Construction Contractor			
2d	Construction activities would attempt to utilize the minimum number and types of vehicles and equipment necessary on the right-of-way.	Construction Contractor		X		Construction Contractor			
2e	If feasible, and where appropriate, construction activities may be scheduled to avoid critical life stages of the desert mule deer.	Construction Contractor	X	X	X	BLM/IID			

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WILDLIFE IMPACT 3 MITIGATION - <i>Design incorporation would minimize electrocution and collision potential.</i>									
3a	Current construction practices for major transmission systems now space conductors and ground wires sufficiently apart so that raptors, including bald eagles, the largest of the raptors, cannot contact two conductors or one conductor and a ground wire to cause electrocution (APLIC 1996). In addition, the conductor spacing for the 230-kV and 500-kV transmission lines would be a minimum of 20 feet and 35 feet, respectively. Both of these conductor spacing distances are significantly greater than the minimum distance that could result in simultaneous wing contact (e.g., the APLIC report shows that the wingspan of a bald eagle is from 6 feet 6 inches to 7 feet 6 inches; perched, a large raptors wing would reach out 39 inches to 51 inches from either side of the body).	Construction Contractor, Biological Monitor, Civil Engineer	X	X		BLM/IID			
3b	Collision potential with the proposed transmission line has been minimized through placement and siting of the new transmission line within a corridor that has existing facilities which provide additional visual cues that often prompt birds to gain altitude and fly over the line (see Thompson 1978).	Construction Contractor, Biological Monitor, Civil Engineer	X	X		BLM/IID			

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WILDLIFE IMPACT 4 MITIGATION - <i>Restrict public access.</i>									
4a	During construction activities, exclusionary fencing via temporary and/or permanent construction barricades, fences with locked gates (at road intersections) and/or sign posting would be utilized, where necessary, to restrict public access in designated Wildlife Management Areas, National Wildlife Refuges, and designated critical areas by the responsible agencies. These barriers would be maintained by the applicant throughout the construction phase.	Construction Contractor, Biological Monitor	X	X	X	BLM/IID			
4b	In addition, temporary constructed spur roads that travel through sensitive or designated management areas would be reclaimed to preclude unauthorized overland vehicle access.	Construction Contractor, Biological Monitor			X	BLM/IID			
WILDLIFE IMPACT 5 MITIGATION - <i>Conduct pre-construction surveys prior to project initiation.</i>									
5a	Prior to project construction activities, it would be determined whether any tree or shrub removal or clearing shall occur during the passerine and raptor nesting season (e.g., March 1 to September 30). If tree or shrub removals occur during the nesting season, a qualified biologist would conduct a focused survey for nests during the nesting season to identify any active nests in the Proposed Project disturbance areas. The survey shall be conducted no less than 14 days and no more than 30 days prior to the beginning of construction and subsequent tree or shrub removal. If	Construction Contractor, Biological Monitor	X			BLM/IID			

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	nesting passerine or raptors are found during the focused survey, no construction or tree removal would occur within 500 feet of an active nest until the young have fledged (as determined by a qualified biologist). If nest trees are unavoidable, they would be removed only during the non-breeding season. If construction activities do not require any tree or shrub removal or clearing during the nesting season, no further mitigation would be necessary.								
SPECIAL-STATUS SPECIES									
SPECIAL-STATUS SPECIES IMPACT 1 MITIGATION - <i>Survey and avoid and/or salvage special-status species plant in areas to be disturbed by project activities.</i>									
1a	A comprehensive focused survey will be conducted in April 2005 from Milepost 89 to 116. The survey will attempt to identify any Coachella Valley milk-vetch plant populations within the Proposed Project right-of-way.	Biological Monitor	X			BLM/IID			
1b	If Coachella Valley milk-vetch plant(s) are identified during the 2005 surveys, vegetation communities and plant locations would be delineated on aerial photography and incorporated into the Plan of Development. In addition, exclusion zones would be marked around identified populations prior to construction. These designated exclusion zones would be marked in the field with stakes and flagging, and all construction-related activities would be prohibited within these zones, including vehicle	Construction Contractor, Biological Monitor	X			BLM/IID			

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	operation, material and equipment storage, and other surface-disturbing activities. Where feasible, minor realignments would be implemented to avoid those populations within the designated tower pad and spur road locations.								
1c	Where avoidance is infeasible, a Plant Salvage Plan would be developed and submitted for approval from the appropriate responsible agencies. It is envisioned that the identified special-status plants would be hand salvaged and planted in an adjacent, undisturbed site.	Biological Monitor	X			BLM/IID			
SPECIAL-STATUS SPECIES IMPACT 2 MITIGATION - <i>Implement measures to decrease the likelihood of incidental take of desert tortoise and habitat mitigation.</i>									
2a	Category I and III desert tortoise habitat impacts would be compensated at ratios calculated using the formulas detailed in USFWS (2002b) Biological Opinion for the CDCA Plan. In addition, the final disturbance acreages would be added to the BLM and USFWS administered database for the cumulative one percent total disturbance for the Chuckwalla DWMA.	Biological Monitor	X			BLM/IID			
2b	Only biologists with authorized USFWS permits shall handle desert tortoises. All handling of desert tortoises and their eggs, relocation of desert tortoises, and excavation of burrows shall be conducted by an authorized biologist in accordance with the USFWS and/or BLM recommended protocol.	Biological Monitor	X	X	X	BLM/IID			

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2c	Only biologist(s) approved or authorized by the USFWS shall conduct pre-project clearance surveys for the desert tortoise or monitor project activities for compliance with any proposed protective measure issues in the Section 7 consultation. BLM shall submit the name(s) and credentials of the proposed project biologist(s) to the USFWS for review and approval at least 30 days prior to the onset of construction activities. No activities shall begin until a biologist(s) is approved by the USFWS.	Biological Monitor	X			BLM/IID			
2d	Approximately 63 miles of the transmission alignment would overlap USFWS designated desert tortoise critical habitat. In order to comply with Section 9 of the ESA, a formal Section 7 consultation with USFWS would be required for potential impacts to desert tortoise, and their designated critical habitat. Additional protocol surveys will be completed in 2005 based on ongoing consultations with the USFWS. The results of the survey will be used by the USFWS. In addition, a 2081 permit or Consistency Determination from the CDFG would also be required.	Biological Monitor	X			BLM/IID			
2e	Appendix G details specific monitoring and protection measures that would be implemented to minimize impacts to the desert tortoise during transmission line construction activities.	Biological Monitor	X	X		BLM/IID			

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SPECIAL-STATUS SPECIES IMPACT 3 MITIGATION - <i>Implement measures to decrease raven populations.</i>									
3a	The BLM would participate in regional passive and active raven depredation control programs in or within 1 mile of desert tortoise habitat.	Biological Monitor	X	X	X	BLM/IID			
3b	Design and operation features would be consistent with adopted land use plans.	Construction Contractor, Civil Engineer	X	X	X	BLM/IID			
3c	All litter and debris shall be promptly removed and deposited in permitted landfills by the construction contractor.	Construction Contractor,	X	X	X	Construction Contractor			
SPECIAL-STATUS SPECIES IMPACT 4 MITIGATION - <i>Implement measures to decrease the likelihood of incidental take of Coachella Valley fringe-toed lizard and habitat mitigation.</i>									
4a	The Applicant would implement a Worker Environmental Awareness Program that details specific life history and graphic demonstrations of the Coachella Valley fringe-toed lizard.	Biological Monitor, Construction Contractor	X			BLM/IID			
4b	To the extent possible, construction in Coachella Valley fringe-toed lizard habitat would be limited to the inactive season for the fringe-toed lizards, which is typically May through July. If construction operations occur outside this time period within suitable habitat of the Coachella Valley fringe-toed lizard, it should occur when the air temperatures 1 inch above ground in the shade are between 96° and 112°F. The lizards should be active within this temperature range and be able to avoid crushing by vehicles and personnel.	Biological Monitor, Construction Contractor	X	X		BLM/IID			

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4c	Pre-construction surveys for Coachella Valley fringe-toed lizard shall be conducted in areas of blows and habitat, including the blows and areas within the Coachella Valley National Wildlife Refuge and adjacent to Dillon Road. The pre-construction surveys would be conducted within 24 hours of ground disturbance and any individuals found would be captured and relocated to a USFWS/CDFG approved area.	Biological Monitor	X			BLM/IID			
4d	To reduce direct impacts to fringe-toed lizards during construction, a qualified biologist would monitor all ground-disturbing activities in Coachella Valley fringe-toed lizard habitat. The monitor(s) would be present throughout construction and restoration activities in Coachella Valley fringe-toed lizard habitat to identify, salvage, and relocate any individuals to the nearest suitable habitat. The preferred method of relocation is to allow the animals to move out of the area on their own, but active removal by hand, snake stick or other non-lethal means may be necessary.	Biological Monitor	X	X	X	BLM/IID			
4e	All construction activities shall be restricted to designated work areas, with all vehicle use occurring only on existing, designated roads. Any spoils should be stockpiled in previously disturbed areas, which have been examined for the presence of lizards (and cleared of lizards, if necessary) by a qualified biologist.	Biological Monitor, Construction Contractor		X		BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
4f	Spur roads and other areas to be disturbed should be examined for lizards (and cleared, if necessary) by a qualified biologist immediately prior to construction.	Biological Monitor	X			BLM/IID			
4g	Based on consultations with the USFWS, the applicant proposes to compensate for permanent impacts to Coachella Valley fringe-toed lizard habitat. Therefore, a habitat assessment will be conducted to identify the extent and location of fringe-toed lizard habitat within the right-of-way between mileposts 89 to 116. The habitat assessment will be conducted in the spring of 2005. All Coachella Valley fringe-toed lizard habitat will be identified and mapped.	Biological Monitor	X			BLM/IID			
4h	In order to comply with Section 9 of the ESA, a formal Section 7 consultation with USFWS would be required for potential impacts to Coachella Valley fringe-toed lizard, and those portions of the transmission line right-of-way that traverse their designated critical habitat. In addition, a 2081 permit or Consistency Determination from the CDFG would also be required.	Biological Monitor	X			BLM/IID			
SPECIAL-STATUS SPECIES IMPACT 5 MITIGATION - <i>Implement measures to decrease the likelihood of incidental take of flat-tailed horned lizard and Colorado Desert fringe-toed lizard.</i>									
5a	Implement a worker education program.	Biological Monitor, Construction Contractor	X			BLM/IID			

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No.	Mitigation Measures	Method of Verification	Timing of Verification			Responsible Party	Completed		Comments
			Pre-Construction	During Construction	Post Construction		Initials	Date	
5b	Flag or otherwise mark the outer boundaries of the project construction areas where necessary to define the limit of work activities.	Biological Monitor, Construction Contractor	X			BLM/IID			
5c	Minimize habitat degradation within sand dunes by limiting travel to existing roads and surface disturbance to previously disturbed areas.	Biological Monitor, Construction Contractor	X	X	X	BLM/IID			
5d	A monitor would be required to remove flat-tailed horned or Colorado Desert fringe-toed lizards in this segment of the right-of-way. Pulling, staging, and equipment storage sites in this segment, where construction activities would be intense and extended over time, may be temporarily fenced with a lizard-proof fence (e.g., 0.5 inch mesh, buried), surveyed prior to construction and cleared of all flat-tailed horned and Colorado Desert fringe-toed lizards. If unfenced (e.g., tower pads), construction activities may require monitoring to assist in removal of all flat-tailed horned and Colorado Desert fringe-toed lizards. Specific removal and translocation criteria are defined in Foreman (1997). The surveying biologist must be familiar with flat-tailed horned and Colorado Desert fringe-toed lizard behavior and habitat associations and approved by CDFG.	Biological Monitor, Construction Contractor	X	X		BLM/IID			
5e	Additionally, where flat-tailed horned and Colorado Desert fringe-toed lizards are found, compensation may be required for acreage	Biological Monitor, Construction	X	X		BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	that is disturbed or lost due to project construction or operation. If lack of occupation can be reasonably demonstrated, no compensation is required and mitigation measures described above can be decreased accordingly.	Contractor							
SPECIAL-STATUS SPECIES IMPACT 6 MITIGATION - <i>Implement measures to decrease the likelihood of incidental take of desert rosy boa.</i>									
6a	To avoid construction-related mortalities of desert rosy boa, it is recommended that construction in or near rocky areas be conducted during daylight hours. This species is nocturnal and individuals can be generally avoided during daytime construction. A construction monitor shall survey appropriate rocky outcropping habitat prior to commencing construction activities. In addition, construction activities, shall to the extent practicable, avoid destruction of rocky outcrops.	Biological Monitor, Construction Contractor	X	X		BLM/IID			
SPECIAL-STATUS SPECIES IMPACT 7 MITIGATION - <i>Identify and avoid ephemeral pools containing Couch's spadefoot larvae.</i>									
7a	Construction disturbances to rain pools or temporary overflow areas could disrupt breeding activities (and annual production), potentially affecting local populations of Couch's spadefoot toad. If there are local thunderstorms that provide substantial moisture under warm conditions (temperatures over 90 degrees Fahrenheit) in July, August, or September, and if construction has not already been completed in that right-of-way area, a qualified biologist will examine persistent pools for Couch's spadefoot. If any	Biological Monitor, Construction Contractor	X	X		BLM/IID			

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	Couch's spadefoot toads are found, the CDFG will be immediately notified and an appropriate avoidance strategy developed. At a minimum, the temporary pools would be monitored daily and no construction activities conducted within 150 feet of temporary pools. If water fails to persist within shallow pools for 10 days, or if no Couch's spadefoot toad eggs, tadpoles, or toads are found within 10 days, then construction may resume in the area. A report on the findings would be submitted to CDFG within 30 days of completion of construction activities.								
SPECIAL-STATUS SPECIES IMPACT 8 MITIGATION - <i>Implement measures to decrease the likelihood of incidental take of burrowing owls.</i>									
8a	Conduct pre-construction surveys to identify occupied burrows. If owls are present on the project site, CDFG would be consulted to determine the best method for minimizing disturbance. If owls are present, and nesting is not occurring, owls may be removed via a CDFG-approved passive relocation method. Owl removal is recommended between September 1 and January 31, to avoid disruption of breeding activities. During the nesting season (February 1 through August 31), if nesting owls are discovered within the construction right-of-way, CDFG would be consulted to determine adequate nest buffers until fledging has occurred. Following fledging, owls may be passively relocated.	Biological Monitor	X			BLM/IID			

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8b	If any active burrows are damaged by construction activities, CDFG would be consulted to determine off-site compensation for loss of occupied habitat. Generally, compensation lands for desert tortoise may apply to burrowing owl compensation	Biological Monitor, Construction Contractor		X	X	BLM/IID			
8c	Unoccupied burrows identified within the construction right-of-way during the pre-construction surveys would be collapsed or excavated prior to construction activities to prevent owl occupancy.	Biological Monitor	X			BLM/IID			
8d	If artificial burrows are installed to minimize the effect of burrow loss, they would be placed within the home range of individual owls affected prior to burrow excavation or installment of one-way doors.	Biological Monitor	X			BLM/IID			
8e	If active burrows (e.g., eggs or fledglings) are discovered during the breeding season within the construction work area, construction activities would be curtailed within a 250 foot buffer area until the young have left the burrow (CDFG Staff Report on Burrowing Owl Mitigation, 1995).	Biological Monitor, Construction Contractor	X	X		BLM/IID			
SPECIAL-STATUS SPECIES IMPACT 9 MITIGATION - Implement measures to decrease the likelihood of destruction of active loggerhead Shrike, LeConte's Thrasher, and black-tailed gnatcatcher nests.									
9a	Removal of nesting substrate (e.g., trees and shrubs) would be performed outside the active breeding season for each of the three species, typically March 1 to September 30. If this is not feasible, a pre-construction survey, in conjunction with the focused special-status plant surveys, would be conducted on potential disturbance areas to identify any active nests.	Biological Monitor, Construction Contractor	X	X		BLM/IID			

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9b	<p>If an active nest(s) are found and construction would occur within 250 feet, BLM's Compliance Inspector would consult with CDFG and/or USFWS to determine the most appropriate preventive action. It is envisioned that two scenarios are available for construction to proceed:</p> <p>a) Construction would be postponed within 250 feet of active nests until a qualified biologist determines that the young have fledged; or</p> <p>b) The applicant secures written authorization from CDFG to proceed with construction. CDFG may require that the nest(s) be continually monitored while construction continues to determine if such activities may result in adults abandoning the eggs or hatchlings and agrees to abide by any conditions.</p>	Biological Monitor, Construction Contractor	X	X		BLM/IID			
SPECIAL-STATUS SPECIES IMPACT 10 MITIGATION - <i>Implement measures to decrease the likelihood of incidental take of prairie falcon.</i>									
10a	As stated in Wildlife Impact 3 above, the design of the facility within an existing corridor would provide additional visual cues that often prompt falcons to gain altitude and fly over the line, and the conductor spacing would be greater than the maximum wing span distance of a prairie falcon in flight.	Construction Contractor, Biological Monitor, Civil Engineer	X	X		BLM/IID			
SPECIAL-STATUS SPECIES IMPACT 11 MITIGATION - <i>Implement measures to decrease the likelihood of chuckwalla mortality.</i>									
11a	A qualified biologist would monitor construction activities in designated right-of-way sections that contain rocky outcroppings in order to identify and relocate any chuckwalla.	Biological Monitor		X		BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
SPECIAL-STATUS SPECIES IMPACT 12 MITIGATION - <i>Implement measures to decrease the likelihood of Coachella Valley round-tailed ground squirrel mortality.</i>									
12a	A qualified biologist would monitor construction activities in designated right-of-way sections in order to site and relocate any Coachella Valley round-tailed ground squirrel. The preferred method of relocation is to allow the squirrel to disperse out of the area on its own, but active removal may be necessary.	Biological Monitor		X		BLM/IID			
12b	If active burrows are identified during the focused pre-construction surveys, they would be flagged and evaluated to determine if active removal, salvaging, or passively excluding individuals or burrow collapse would negate any future potential impact.	Biological Monitor	X			BLM/IID			
WATERS OF THE U.S.									
WATERS OF THE U.S. IMPACT 1 MITIGATION - <i>The following actions and all permit conditions issued within the COE Nationwide Permit would be implemented by IID's construction contractor. BLM's Compliance Inspector and IID's Environmental Compliance Monitor(s) would routinely inspect construction activities to verify that these measures and permit conditions have been implemented.</i>									
1a	Upon completion of the final engineering design including tower structure placement via surveying, a “waters of the U.S.” survey using the 1987 COE Manual would be completed and submitted to the COE. It is envisioned that a Nationwide 12 Permit would be required prior to project construction activities.	Biological Monitor	X			BLM/IID			

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1b	The Proposed Alternative would be designed consistent with COE guidance to minimize impacts to floodplains and jurisdictional waters of the U.S., and construction of the transmission line would incorporate best management practices, include erosion control measures, and comply with all COE and water quality permit terms and conditions to protect water quality in the project area.	Biological Monitor, Civil Engineer	X			BLM/IID			
1c	Spur roads and tower pad placement through wide washes would be minimized during the design engineering to the maximum extent allowable. Where such facilities are infeasible outside identified washes, habitat disturbance and tree removal would be minimized. These identified washes would be flagged prior to disturbance by a qualified resource specialist, and all construction activities would take place inside designated areas in order to ensure minimum habitat disturbance.	Civil Engineer, Biological Monitor, Construction Contractor	X	X		BLM/IID			
1d	“Waters of the U.S.” would be restored in a manner that encourages vegetation to reestablish to its pre-construction condition and reduces the effects of erosion on the drainage system.	Biological Monitor, Construction Contractor			X	BLM/IID			
1e	Additional compensatory, restoration, or avoidance mitigation measures may be identified by regulatory agencies (e.g., COE, USFWS) as part of the permitting process and would be implemented into the Plan of Development	Biological Monitor	X	X	X	BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
CULTURAL RESOURCES									
CULTURAL RESOURCES IMPACT 1 MITIGATION - <i>Preparation of a Treatment Plan for avoiding and mitigating unavoidable direct adverse effects on resources eligible for National Register listing will be prepared and implemented.</i>									
1a	Treatment of cultural resources will follow the procedures established by the ACHP for compliance with Section 106 of the NHPA and also for compliance with CEQA. A Treatment Plan will be prepared to identify methods of avoiding or mitigating effects. Prior to that, a pedestrian inventory will be undertaken of all portions that have not been previously surveyed or identified by BLM as requiring inventory to identify properties that are eligible for the NRHP (and de facto, the CRHR). Those sites not already evaluated for NRHP eligibility will be evaluated based on surface remains, subsurface testing, archival and ethnographic sources, and in the framework of the historic context and important research questions of the Project Area. Sites determined not eligible will receive no further treatment. A cultural resources evaluation report will be submitted to BLM for review, and for consultation purposes, as part of the development of the Treatment Plan.	Archaeological Monitor	X			BLM/IID			

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1b	<p>Avoidance</p> <p>It is the policy of the BLM to avoid adverse effects to cultural resources to the extent possible. Avoidance of cultural resource sites is the preferred measure, and all impacts to eligible sites will be avoided to the greatest extent possible. As Proposed Project design plans are being finalized, the designated cultural resource specialist and BLM staff will review 1":400' or better scale orthotopo maps of Proposed Project impacts and provide an assessment of direct adverse effects to National Register eligible or unevaluated cultural resources. Recommendations for plan adjustments to avoid all eligible resources to the extent feasible will be made and Proposed Project design adjustments may be necessary.</p> <p>Final design of the Proposed Project (for example, tower placement and work areas will include measures to avoid National Register eligible sites where feasible. The final list of sites to be avoided during construction will be specified in the Treatment Plan. The Treatment Plan will also include detailed measures to ensure this avoidance is implemented during construction.</p> <p>Prior to the start of earth disturbing activities or Proposed Project site preparation, IID shall provide the designated cultural resources</p>	Archaeological Monitor	X			BLM/IID			

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	specialist and the BLM with final maps and/or drawings showing the area of potential effects of the Proposed Project and all linear facilities. Maps provided will include 1":400' or better scale orthotopo maps showing all Proposed Project impacts. If the footprint of the Proposed Project changes, IID shall provide maps and drawings reflecting these changes to the cultural resources specialist and the BLM within five days. Maps shall show the location of all areas where surface disturbance may be associated with Proposed Project-related access roads, staging areas, and any other Proposed Project components.								
1c	Treatment Plan A Treatment Plan will be prepared for the project. Methods for mitigation of adverse effects and avoidance of impacts during construction will be clearly identified in the Treatment Plan, which will include a mitigation monitoring plan. A qualified archaeological monitoring team will be employed to ensure implementation of the mitigation monitoring plan. Monitors will have the authority to halt construction activities in the immediate construction area if these activities disturb a site that has been identified for avoidance. Sites within 50 feet of the impacted areas will be monitored to ensure impacts do not occur during construction. Specific measures may include flagging and staking and/or the placement of temporary fencing to ensure impacts do not	Archaeological Monitor	X			BLM/IID			

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	<p>occur during construction. These measures will be designed on a case-by-case basis and in a manner that does not draw attention to a specific site location. Specific procedures, the role of monitors, and the level of Native American participation will be identified in the mitigation monitoring plan portion of the Treatment Plan. The objective of the mitigation monitoring portion of the Treatment Plan is to ensure that cultural resources that are National Register eligible and can feasibly be avoided through planning are not adversely affected by the Proposed Project.</p> <p>As part of the Treatment Plan for mitigation of unavoidable direct adverse effects to National Register eligible resources, the designated cultural resources specialist will prepare a research design and a scope of work for evaluation of cultural resources and data recovery or additional mitigation of National Register eligible sites that cannot be avoided. IID shall submit the proposed research design and scope of work to BLM's archaeologist for review and consultation with SHPO and Native American groups as necessary and appropriate.</p> <p>The proposed research design and scope of work shall include (but not be limited to):</p> <ul style="list-style-type: none"> • A discussion of the methods to be used 								

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	<p>to recover additional information and any needed analysis to be conducted on recovered materials;</p> <ul style="list-style-type: none"> • A discussion of the research questions that the materials may address or answer by the data recovered from the Proposed Project; and • A discussion of possible results and findings. <p>The objective of mitigation through data recovery is to acquire substantive data relative to the research issues identified in the research design of the Treatment Plan. These data are intended to provide information important to history or prehistory relative to the characteristics that rendered the site eligible for inclusion in the National Register. Data recovery on most sites would consist of surface collection and sample excavation. Only on very small sites would complete excavation or collection be considered an appropriate treatment. Other forms of mitigation may also include the collection of oral histories, historical documentation, including architectural and engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation.</p> <p>IID shall ensure that the authorized cultural resources specialist performs the data recovery, preparation for analysis, preparation</p>								

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	for curation, and delivery for curation of all cultural resource materials. IID shall provide a copy of a curation agreement from a public repository that meets the requirements set out in 36 CFR 79 for the curation of cultural resources. In addition, IID shall ensure that all cultural resource materials, maps, and data collected during data recovery and mitigation for the Proposed Project are delivered to the repository following the approval of the Cultural Resources Report. The Proposed Project owner shall pay any fees for curation required by the repository. The BLM will retain ownership of artifacts collected from BLM managed lands.								
1d	Data Recovery to Reduce Adverse Effects Planning for full-scale data recovery excavation to mitigate the loss of substantial and significant archaeological deposits will be based on the site's research potential beyond that realized during site recording and testing operations. The data gathered during the test investigation and the research design will guide the planning of full-scale excavation. The cultural resources specialist will consult with the BLM and IID regarding excavations for mitigation. Data recovery methods, sample sizes, and procedures will be detailed in the Treatment Plan for SHPO review.	Archaeological Monitor	X			BLM/IID			

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	If data recovery is necessary, sampling for data recovery excavations will follow standard statistical sampling methods, but sampling will be confined, as much as possible, to the direct impact area.								
CULTURAL RESOURCES IMPACT 2 MITIGATION - <i>Designate a cultural resources specialist to be available to address discovered resources.</i>									
2a	<p>Because unanticipated discoveries may occur, the designated cultural resources specialist shall be available at all times to respond within 48 hours to adjustments in the Proposed Project. Addressing discovered resources may include additional testing and significance evaluation. If unanticipated discoveries are made, the archaeological monitor, or representative of IID or BLM shall have the authority to temporarily halt or redirect construction activities. The designated cultural resource specialist shall be notified and IID or IID's representative shall halt construction in the immediate area in order to protect the discovery from further damage; Proposed Project construction may continue elsewhere on the Proposed Project. If such resources are found, the specialist shall contact the BLM's archaeologist as soon as possible.</p> <p>If such resources are found and the BLM's archaeologist determines that they are or may be significant, the halting or redirection of construction shall remain in effect until:</p> <ul style="list-style-type: none"> the specialist, IID, and the BLM have 	Archaeological Monitor, Construction Contractor		X		BLM/IID			

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	<p>conferred and determined what, if any, data recovery or other mitigation is needed;</p> <ul style="list-style-type: none"> consultation with SHPO and/or Native American groups is completed as appropriate and necessary; and any needed data recovery and mitigation has been completed. <p>If data recovery or other mitigation measures are required, the designated cultural resources specialist and team members shall monitor construction activities and implement the agreed upon data recovery and mitigation measures, as needed.</p>								
CULTURAL RESOURCES IMPACT 3 MITIGATION - <i>Implement Cultural Resources Impact 1 Mitigation.</i>									
CULTURAL RESOURCES IMPACT 4 MITIGATION - <i>Consultation with Native American groups.</i>									
4a	<p>Additional consultation with concerned Native American groups is recommended to determine if the archaeological sites have additional sensitivities as TCPs. The localities and sites identified thus far should not be considered exhaustive, and additional sites may also possess properties with special concerns. These include any habitation sites with the potential for human remains, sites with rock art, cultural landscapes, and certain trails. Quechan trails and ceremonial routes along the Colorado River and certain branches to the west are particularly sensitive.</p>	Archaeological Monitor	X			BLM/IID			

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AIR QUALITY									
AIR QUALITY IMPACT 1 MITIGATION - <i>The following mitigation measures would be implemented during the construction of the Proposed Project and Variation PP1 to reduce the exhaust emissions of CO, NO_x, VOC, SO_x, and PM₁₀</i>									
1a	Heavy duty off road diesel engines over 50 horsepower will meet Tier I ARB/EPA standards for offroad equipment and will be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations;	Construction Contractor		X		Construction Contractor			
1b	Construction vehicles will have 1996 and newer model engines;	Construction Contractor		X		Construction Contractor			
1c	Diesel fuel for vehicles and equipment operating within the boundaries of the SCAQMD will be purchased in the SCAQMD (SCAQMD adopted a 15 ppmw sulfur limit for diesel fuel sold in the District effective January 2005).	Construction Contractor		X		Construction Contractor			
1d	Visible emissions from all heavy duty off road diesel equipment shall not exceed 20 percent opacity for more than three minutes in any hour of operation;	Construction Contractor		X		Construction Contractor			
1e	A comprehensive inventory (i.e. make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 hours per week or more during the duration of the construction project will be submitted to the Districts.	Construction Contractor		X		Construction Contractor			
1f	Apply water or chemical dust suppressants to unstabilized disturbed areas and/or unpaved roadways in sufficient quantity and frequency to maintain a stabilized surface.	Construction Contractor		X		Construction Contractor			

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1g	Water or water-based chemical additives will be used in such quantities to control dust on areas with extensive traffic including unpaved access roads. Water, organic polymers, lignin compounds, or conifer resin compounds will be used depending on availability, cost, and soil type.	Construction Contractor		X		Construction Contractor			
1h	Surfaces permanently disturbed by construction activities will be covered or treated with a dust suppressant within five days of the completion of activities at each site of disturbance.	Construction Contractor		X		Construction Contractor			
1i	Vehicle speeds on unpaved roadways will be restricted to 15 mph.	Construction Contractor		X		Construction Contractor			
1j	Vehicles hauling dirt will be covered with tarp or other means.	Construction Contractor		X		Construction Contractor			
1k	Site construction workers will be staged off-site at or near paved intersections and workers will be shuttled in crew vehicles to construction sites.	Construction Contractor		X		Construction Contractor			
WATER RESOURCES									
WATER RESOURCES IMPACT 1 MITIGATION - A SWPPP would be prepared as required by the State Water Resources Control Board's General Construction Activity Storm Water Permit. The SWPPP shall include:									
1a	An outline of the areas of vegetative soil cover or native vegetation onsite that will remain undisturbed during the construction project.	Biological Monitor	X			BLM/IID			
1b	An outline of all areas of soil disturbance including cut or fill areas which will be stabilized during the rainy season by temporary or permanent erosion control measures, such as seeding, mulch, or blankets, etc.	Geotechnical Engineer, Civil Engineer	X			BLM/IID			

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1c	An outline of the areas of soil disturbance, cut, or fill which will be left exposed during any part of the rainy season, representing areas of potential soil erosion where sediment control BMPs are required to be used during construction.	Geotechnical Engineer, Civil Engineer	X			BLM/IID			
1d	A proposed schedule for the implementation of erosion control measures. (a) The SWPPP shall include a description of the BMPs and control practices to be used for both temporary and permanent erosion control measures. (b) The SWPPP shall include a description of the BMPs to reduce wind erosion at all times, with particular attention paid to stockpiled materials.	Geotechnical Engineer, Civil Engineer	X			BLM/IID			
1e	In addition, the SWPPP would include the following spill prevention and control measures: (a) Minimize on-site use of hazardous materials and use materials with the lowest toxicity practicably available. (b) Refuel and maintain of vehicles and equipment only in designated areas that are either bermed or covered with concrete or asphalt to control potential spills. (c) Conduct refueling only with	Geotechnical Engineer, Civil Engineer, Hazardous Materials Monitor	X			BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	<p>approved pumps, hoses, and nozzles.</p> <p>(d) Service and maintenance of vehicles and equipment will be conducted only by authorized personnel.</p> <p>(e) Place catch-pans under equipment to capture potential spills during servicing.</p> <p>(f) Place all disconnected hoses in containers to collect residual fuel from the hose.</p> <p>(g) Shut down vehicle engines during refueling.</p> <p>(h) No smoking, open flames or welding will be allowed in refueling or service areas.</p> <p>(i) Perform refueling away from bodies of water to prevent contamination of water in the event of a leak or spill.</p> <p>(j) When refueling is completed, the service truck will leave the project site.</p> <p>(k) Provide service trucks with fire extinguishers and spill containment equipment, such as absorbents.</p> <p>(l) Should a spill contaminate soil, place the soil in containers and dispose of as a hazardous waste.</p>								

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	(m) Inspect all containers used to store hazardous materials at least once per week for signs of leaking or failure. All maintenance and refueling areas will be inspected monthly. Results of inspection will be recorded in a logbook that will be maintained on-site.								
WATER RESOURCES IMPACT 2 MITIGATION - A SWPPP will be prepared as required by the State Water Resources Control Board's General Construction Activity Storm Water Permit. In addition to the measures identified above (i.e., Water Resources Impact 1 Mitigation), the SWPPP would also include the following measures:									
2a	Minimize soil disturbances within a watercourse or potential watercourse channels.	Geotechnical Engineer, Civil Engineer, Construction Contractor	X	X		BLM/IID			
2b	If disturbance of a watercourse or potential watercourse is necessary, perform all construction activities when flows in the channel are low or during months when rainfall is minimal.	Geotechnical Engineer, Civil Engineer, Construction Contractor	X	X		BLM/IID			
2c	After construction activities have been completed in an area, appropriately spread or stabilize the exposed or stockpiled soil to prevent entrainment during a discharge event.	Geotechnical Engineer, Civil Engineer, Construction Contractor	X		X	BLM/IID			
2d	Prepare and implement a Reclamation Plan (see Appendix E).	Geotechnical Engineer, Civil Engineer, Construction Contractor	X	X	X	BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
WATER RESOURCES IMPACT 3 MITIGATION									
3a	Surveys of the route will be conducted prior to construction to identify springs and their well depths, flow conditions, and hydrogeologic relationships within 1,000 feet of construction activities. This survey will also include assessing sensitive endemic species located near these wells and springs. Construction activities will be limited in the following manner: (1) construction activities will not be carried out within 100 feet of a well without using BMPs; (2) blasting will be prohibited within 500 feet of a well; and (3) only size limited blasting will be authorized within 1,000 feet of a well. If damage occurs to a well or spring, the affected area will be repaired by the contractor.	Geotechnical Engineer, Civil Engineer, Biological Monitor	X			BLM/IID			
3b	The use or storage of hazardous materials near a well or spring will be prohibited. Additionally, special precautions will be implemented to prevent spills of hazardous materials, discharges of foreign materials, and sedimentation discharges near a well or spring.	Civil Engineer, Hazardous Materials Monitor, Construction Contractor		X		BLM/IID			
3c	Dewatering activities for tower footings or other deep excavations will be planned to minimize the effect on wells and springs	Civil Engineer, Geotechnical Engineer, Construction Contractor	X	X		BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
WATER RESOURCES IMPACT 4 MITIGATION									
4a	The placement of a tower in an alluvial fan where it emerges at a canyon mouth and at the front of a mountain should be avoided. Locating structures near watercourses or washes with sizable catchments in nearby mountains which are generally prone to flash floods should be avoided. Historical review and interviews with knowledgeable individuals or groups about past flash flooding events in the area should be undertaken.	Civil Engineer, Geotechnical Engineer, Construction Contractor	X			BLM/IID			
4b	If placement of a tower in an area described in a, above, cannot be avoided, a geotechnical engineer should be consulted regarding the design of the tower at risk locations.	Civil Engineer, Geotechnical Engineer, Construction Contractor	X			BLM/IID			
GEOLOGY AND SOILS									
GEOLOGY AND SOILS IMPACT 1 MITIGATION									
1a	IID will retain a qualified engineering geologist to evaluate the potential for geotechnical hazards and unstable slopes on the centerline route and areas of new road construction or widening on slopes with over 15 percent gradient. The engineering geologist will evaluate the nature of the steep slope and/or unstable soil hazard at tower sites with these constraints and the immediate vicinity to allow options for avoiding the hazard. The evaluation should be based on an inspection of all sites where towers or roads will be constructed with slopes of 15	Geotechnical Engineer, Civil Engineer	X			BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	<p>percent or greater, or have identified slope instability hazards. Soil testing will be conducted, if needed, to ascertain the depth, lateral extent of unstable materials, and potential hazards both upslope, and down slope of the site.</p> <p>The engineering geologist will prepare a report that includes recommendations for moving the towers or roads, or identifies construction methods to stabilize the site or off-site areas that would threaten the hazard sites if the structures cannot be moved. IID will incorporate the recommendations of the engineering geologist into its COM Plan, including construction drawings and details for grading, drainage, and specialized slope treatment (e.g., installation of retaining walls, wire retention structures, gabions, berms to deflect debris avalanches, etc.). IID's construction contractor will implement the plans, and IID's quality assurance inspectors and the environmental monitors will inspect and certify that the slopes have been constructed and stabilized in accordance with details in the COM Plan.</p>								
1b	Under no circumstances will cut or fill slopes be allowed to pose a temporary or long-term hazard to the Proposed Project facilities or to off-site property in accordance with criteria set in the COM	Geotechnical Engineer, Civil Engineer, Construction Contractor	X	X	X	BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	Plan. All cut slopes will be cut at an angle of repose and/or benched or otherwise protected to ensure long-term stability. IID will commit to appropriate re-contouring, erosion control, and reseeded of all cut-and-fill slopes. IID will also ensure the long-term stability of all slopes. Monitoring and stability requirements will be detailed in the Reclamation section of the COM Plan.								
1c	To reduce the environmental impacts of slope alteration, all practicable measures will be taken to avoid locating transmission line footings and roads on sites that have severe geotechnical hazards requiring substantial grading and other engineering of cut and fill slopes.	Geotechnical Engineer, Civil Engineer, Construction Contractor	X	X		BLM/IID			
GEOLOGY AND SOILS IMPACT 2 MITIGATION									
2a	To reduce the hazards of damage from ground rupture, all practicable measures will be taken to avoid sites for transmission towers that are located within known fault zones. Fault zones with a record of historic or Holocene (within the last 10,000 years) fault displacement will be considered capable fault zones. A geotechnical engineering investigation consistent with California geologic and engineering standards will be conducted for the Proposed Project by a licensed geotechnical engineer. The geotechnical engineer will prepare a report that summarizes the results of a field	Geotechnical Engineer, Civil Engineer	X			BLM/IID			

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No.	Mitigation Measures	Method of Verification	Timing of Verification			Responsible Party	Completed		Comments
			Pre-Construction	During Construction	Post Construction		Initials	Date	
	investigation, including site inspection and soil testing, potential geologic hazards including fault rupture and severe secondary effects of earthquakes (e.g., liquefaction), and design criteria and construction methods to effectively construct the Proposed Project with an acceptable level of risk. The report will address all geologic and geotechnical factors related to the design and construction of the Proposed Project. The geotechnical engineering investigation will delineate areas of active and potentially active faults. To the extent possible, it will identify fault traces and locate them in the field so faults can be avoided during tower siting. A more detailed geologic investigation may be necessary in some active and potentially active fault areas if the trace is not sufficiently defined by surface geologic features.								
2b	All practicable precautions will be taken to design and construction of transmission towers and new substations, substation facility improvements, and equipment to withstand the projected ground shaking associated with the MPE in the area. This includes secondary hazards induced by earthquakes (liquefaction, lurching, lateral spreading, rapid differential settlement, induced landslides, and rock-fall avalanche). The MPE represents the	Geotechnical Engineer, Civil Engineer, Construction Contractor	X	X	X	BLM/IID			

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No.	Mitigation Measures	Method of Verification	Timing of Verification			Responsible Party	Completed		Comments
			Pre-Construction	During Construction	Post Construction		Initials	Date	
	strongest earthquake likely to occur over the design life of the Proposed Project. The geotechnical engineering investigation will provide regional seismic criteria for the design of the Proposed Project facilities including transmission components, new access roads, and substation additions. To minimize potential damage from ground shaking and secondary earthquake effects, transmission line structures will be designed using project-specific criteria in accordance with the latest revision of the NESC. New substation and substation facilities improvements will meet the appropriate design criteria contained in the most current applicable edition of the UBC.								
GEOLOGY AND SOILS IMPACT 3 MITIGATION									
3a	Construction, operation, and maintenance activities will be restricted when the soil is too wet to adequately support construction or maintenance equipment (i.e., when heavy equipment creates ruts in excess of 4 inches deep over a distance of 100 feet or more in wet or saturated soils). This standard will not apply in areas with silty soils, which easily form depressions even in dry weather. Where the soil is deemed too wet, one or more of the following measures will apply: 1) When feasible, reroute all construction or maintenance activities	Geotechnical Engineer, Civil Engineer, Construction Contractor	X	X	X	BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	<p>around the wet areas while ensuring that the route does not cross sensitive resource areas.</p> <p>2) If wet areas cannot be avoided, implement BMPs for use in these areas during construction and improvement of access roads, and their subsequent reclamation. This includes use of wide-track or balloon-tire vehicles and equipment, or other weight dispersing systems approved by the appropriate resource agencies. It also may include use of geotextile cushions, pre-fabricated equipment pads, and other materials to minimize damage to the substrate where determined necessary by resource specialists. If BMPs cannot be successfully applied to wet or saturated soil areas, construction or routine maintenance activities would not be allowed in these areas until the Project environmental monitor(s) determine it is acceptable to proceed.</p> <p>3) Limit access of construction equipment to the minimum amount feasible, remove and separate topsoil in wet or saturated areas, and stabilize subsurface soils by grading dewater problem areas, utilizing weight dispersion mats, and/or maintaining erosion control measures such as surface drilling and back-dragging.</p>								

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	After construction is complete, regrade and recontour the area, replace topsoil, and reseed to achieve the required plant densities.								
GEOLOGY AND SOILS IMPACT 4 MITIGATION									
4a	Vegetation removal and soil disturbances (including temporary road improvements) will be minimized in areas where soil constraints occur. Where vegetation removal is required, mowing or cutting will be the primary method utilized. Plants will generally be cut at a height that results in the least damage to the root crown during cutting or subsequent damage by vehicles and equipment. Blading will be restricted except when required for safe equipment operation (e.g., crane operation on a side hill). Previously located environmental constraint areas will be delineated in the field by a qualified resource specialist prior to construction and included in the COM Plan. These environmental constraint areas will then be avoided by construction activities, or mitigation would be applied consistent with measures described in this EIS/EIR.	Geotechnical Engineer, Civil Engineer, Construction Contractor, Biological Monitor	X	X		BLM/IID			
GEOLOGY AND SOILS IMPACT 5 MITIGATION									
5a	Prior to construction, soils will be evaluated to determine if they are expansive and if they may have potential effects on the proposed facilities. Where they represent a potential hazard, solutions	Geotechnical Engineer, Civil Engineer	X			BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	recommended by the Proposed Project's geotechnical engineer, such as excavation and replacement of the expansive soils with compacted backfill, will be required. If imported backfill material is used, it will be certified to be free of noxious weeds and propagates (i.e., seeds and root fragments).								
GEOLOGY AND SOILS IMPACT 6 MITIGATION - <i>Short-term erosion and sedimentation will be reduced and topography and vegetation, will be quickly restored as practicable to pre-construction conditions in all areas required and approved by BLM and private landowners.</i>									
6a	<p>A qualified resource specialist will monitor implementation during construction and operations, until successful revegetation is achieved. Monitoring of the erosion control measures will continue until reclamation efforts were considered complete and successful. Measures to be implemented during the Proposed Project construction and reclamation are listed below.</p> <p>Implementation of the following environmental protection practices will minimize the effects of grading, excavation, and other surface disturbances in all project areas. Schedules and specifications on the use of these features would be included in the COM Plan. In addition, specific mitigation measures for the construction of transmission lines within the CVPA and NECO planning areas, which are primarily associated with biological and recreational resources, are discussed in Sections 3.1 and 3.13 of this EIS/EIR.</p>	Biological Monitor, Construction Contractor, Civil Engineer, Geotechnical Engineer	X	X	X	BLM/IID			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	<ul style="list-style-type: none"> • Confine all vehicular traffic associated with construction to designated right-of-ways, material yards, wire set-up sites, and access roads designated in the COM Plan. • Limit disturbance/removal of soils and vegetation to the minimum area necessary for access and construction. • Where vegetation removal is necessary, use cutting/mowing methods instead of blading, wherever possible. • Adhere to a construction methodology that mitigates impacts to less than significant levels in sensitive areas during severe weather events. • Inform all construction personnel before they are allowed to work on the Proposed Project of environmental concerns, pertinent laws and regulations, and elements of the erosion control plan. This could be presented in a multi-hour environmental training for project management and general foremen, and a short (one hour or less) environmental training class for construction personnel. • Minimize grading to the extent possible. When required, grading will be conducted away from watercourses/washes to reduce the potential of material entering the watercourse. • Slope and berm graded material, where possible, to reduce surface water flows across the graded area. 								

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	<ul style="list-style-type: none"> Replace excavated materials in disturbed areas and minimize the time between excavation and backfilling. Direct the dewatering of excavations onto stable surfaces to avoid soil erosion. Use detention basins, certified weed-free straw bales, or silt fences, where appropriate. Use drainage control structures, where necessary, to direct surface drainage away from disturbance areas and to minimize runoff and sediment deposition downslope from all disturbed areas. These structures include culverts, ditches, water bars (berms and cross ditches), and sediment traps. Implement other applicable BMPs to minimize erosion-related impacts during construction and improvement of access roads, and their subsequent reclamation. Re-establish native and, if necessary, non-persistent, non-invasive, non-native vegetation cover in highly erodible areas as quickly as possible following construction. <p>In areas of highly erodible soils, non-standard construction equipment and techniques that minimize surface disturbance, soil compaction, and loss of topsoil will be used, such as vehicles with low ground pressure tires. Vegetation clearing will be minimized. Temporary erosion control measures, in accordance with the COM Plan, will be in place before construction is</p>								

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
	allowed to proceed in potential soil erosion areas (e.g., steep slope areas). Erodible slopes that do not require grading will be cleared using equipment that results in little to no soil disturbance.								
VISUAL RESOURCES									
VISUAL RESOURCES IMPACT 1 MITIGATION - <i>Mitigation Measure for Construction Impacts.</i>									
1a	After Project construction is complete, ground surfaces within the transmission line right-of-way and areas outside the right-of-way that are disturbed during project construction would be restored to their original condition and grade, as outlined in the Reclamation Plan.	Construction Contractor, Biological Monitor			X	BLM/IID			
1b	Staging areas would be revegetated as necessary, pursuant to the Reclamation Plan	Construction Contractor, Biological Monitor			X	BLM/IID			
1c	Topographic features and landforms would be used to screen the spur roads where feasible.	Construction Contractor		X		BLM/IID			
1d	Existing rock formations and vegetation would be retained whenever possible.	Construction Contractor		X		BLM/IID			
1e	Construct access roads and the spur roads at appropriate angles from the originating primary travel route to minimize extended, in-line views of newly graded terrain. This mitigation is dependent upon the ability to safely construct, maintain, and utilize the road/route.	Construction Contractor, Civil Engineer	X			BLM/IID			
VISUAL RESOURCES IMPACT 2 MITIGATION - <i>Mitigation Measures for Conflicts with VRM System Goals and Objectives.</i>									
2a	Establish limits of disturbance that reflect the minimum area required for construction.	Civil Engineer	X			BLM/IID			

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2b	Finish transmission structures with flat, neutral gray tones that would relate to the colors of the structures in the existing transmission corridors and would blend with the surrounding environment.	Construction Contractor			X	BLM/IID			
2c	Use nonspecular conductors, and nonreflective and nonrefractive insulators to reduce conductor and insulator visibility.	Construction Contractor		X		BLM/IID			
LAND USE									
LAND USE IMPACT MITIGATION – None Required.									
SOCIOECONOMICS									
SOCIOECONOMICS IMPACT MITIGATION – None Required.									
NOISE									
NOISE IMPACT 1 MITIGATION									
1a	Construction occurring within 0.5 miles of a residential dwelling or designated campground shall be limited to a Monday through Friday work schedule of 7:00 a.m. to 7:00 p.m. to reduce sleep interference.	Construction Contractor		X		Construction Contractor			
1b	Construction equipment shall be equipped with manufacturer recommended mufflers or equivalent.	Construction Contractor		X		Construction Contractor			
1c	Construction equipment shall be turned off when not in operation.	Construction Contractor		X		Construction Contractor			
NOISE IMPACT 2 MITIGATION									
2a	Blasting during construction would only be conducted when other practicable excavation methods are not available.	Construction Contractor, Civil Engineer, Blasting Contractor	X	X		Construction Contractor			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
2b	In the event that blasting is necessary, it would be conducted only during the hours of 7:00 a.m. to 5:00 p.m., Monday through Friday.	Construction Contractor, Civil Engineer, Blasting Contractor		X		Construction Contractor			
2c	Sensitive receptors within areas in which noise from blasting would be greater than ten dB would be provided advance notification of the date and time of any blasting activities.	Construction Contractor, Blasting Contractor	X			BLM/IID			
2d	In the event that blasting is necessary, a Blasting Plan would be developed and approved by the BLM and the project proponents.	Civil Engineer, Blasting Contractor, Construction Contractor	X			BLM/IID			
TRAFFIC AND TRANSPORTATION									
TRAFFIC AND TRANSPORTATION IMPACT 2 MITIGATION - <i>Traffic controls would be implemented at locations of ingress and egress of construction vehicles on public roadways as necessary to ensure that safe driving conditions are maintained.</i>									
2a	Traffic controls could include ensuring that the locations of newly constructed access road intersections with public roadways are highly visible and placing signage and traffic control crews at select locations to ensure that motorists are aware of the presence of crossing or slow-moving construction vehicles	Construction Contractor	X			BLM/IID			
TRAFFIC AND TRANSPORTATION IMPACT 3 MITIGATION									
3a	Following construction, or during construction as necessary to maintain safe driving conditions, any damage to existing roadways caused by construction vehicles would be repaired	Construction Contractor		X	X	BLM, IID, Construction Contractor			

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			Pre-Construction	During Construction	Post Construction		Initials	Date	
PUBLIC HEALTH AND SAFETY									
PUBLIC HEALTH AND SAFETY IMPACT 3 MITIGATION									
3a	IID would implement a FPRP during construction, operation, and maintenance of the proposed transmission line. A detailed plan would be prepared as part of the COM Plan. A preliminary outline of the FPRP is provided with this EIS/EIR as Appendix H, and includes some of the basic practices and techniques that would be included in the final FPRP, and used to minimize fire hazards associated with the Proposed Project.	Hazardous Materials Monitor, Construction Contractor, Fire Marshal	X	X	X	BLM/IID			
PUBLIC HEALTH AND SAFETY IMPACT 7 MITIGATION									
7a	Prior to energizing the Proposed Project transmission line, IID would consult with managers of agricultural land within the transmission line right-of-way to ensure that irrigation practices would not create a potential for water stream contact with overhead transmission lines. This mitigation measure would reduce Health and Safety Impact 7 to less than significant.	BLM/IID			X	BLM/IID			
PALEONTOLOGICAL RESOURCES									
PALEONTOLOGICAL RESOURCES IMPACT 1 MITIGATION - A qualified vertebrate paleontologist will develop a program to mitigate impacts to nonrenewable paleontologic resources. This mitigation program will be consistent with provisions of CEQA, regulations currently implemented by Riverside County, and proposed guidelines of the Society of Vertebrate Paleontology. This program will include, but will not be limited to:									
1a	Pre-construction survey of the length of the Proposed Project alignment to confirm and/or augment geologic mapping, to further assess the paleontologic potential of the geologic formations described herein (particularly those	Paleontological Monitor	X			BLM/IID			

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	having undetermined paleontologic sensitivity), to recover exposed paleontologic resources as necessary, and to determine where historic or recent disturbances might have reduced or eliminated the paleontologic sensitivity of a given rock unit.								
1b	Monitoring, by a qualified paleontologic monitor, of excavation in areas identified as having high or undetermined potential to contain paleontologic resources. The monitor should be equipped to salvage fossils as they are unearthed, to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring may be reduced if the potentially fossiliferous units described herein are not present at the surface or in the subsurface, or if present are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources.	Paleontologica 1 Monitor	X	X		BLM/IID			
1c	Preparation of recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates.	Paleontologica 1 Monitor	X	X	X	BLM/IID			
1d	Identification and curation of specimens into a museum repository with permanent retrievable storage. The paleontologist should have a written repository agreement in hand prior to the initiation of mitigation activities.	Paleontologica 1 Monitor	X	X		BLM/IID			

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1e	Preparation of a report of findings with an appended itemized inventory of specimens. The report and inventory, when submitted to the appropriate Lead Agency, would signify completion of the program to mitigate impacts to paleontologic resources.	Paleontological Monitor	X	X	X	BLM/IID			
WILDERNESS AND RECREATION									
WILDERNESS AND RECREATION IMPACTS – None Required.									